

WAVIN Stormwater Management

AquaCell Attenuation designed with accordance with CIRIA C697

Project & Site Details

Project Number	S20717	Produced by	Mark Henly
Client	AHT Developments	Checked by	Mark Henly
Site Name	Malmesbury Close		
Location	Pinner HA5 2NG	Date	25/06/2021

Drainage Details

Area	120 m ²	Climate Change	40 %
Catchment Type	Roof + Hardstanding	Effective Area	151 m ²
Area Reduction Factor	0.9	Additional Inflow	0.00 l/s

Discharge Parameters

Discharge Rate	5.00 l/s	Soil Type	Clay
Factor of Safety	1	Source	Unknown
Effective Discharge	5.00 l/s		
Additional Outflow*	0.00 l/s	Depth to Groundwater (m)	Unknown

*flat rate from pump only

Rainfall Data

R value	0.45			Storm Return Period			1 in 100 years	
M5-60	20			Country			England and Wales	
	<u>Time</u>	<u>Z1 Value</u>	<u>y mm</u>	<u>Z2 Value</u>	<u>p mm</u>	<u>Inflow</u>	<u>Outflow</u>	<u>Storage</u>
	5min	0.39	7.80	1.84	14.35	2.17	1.500	0.670
	10min	0.55	11.00	1.91	21.01	3.18	3.000	0.177
	15min	0.64	12.80	1.91	24.45	3.70	4.500	-0.803
	30min	0.82	16.40	1.99	32.64	4.93	9.000	-4.065
	1hr	1.00	20.00	2.03	40.60	6.14	18.000	-11.861
	2hr	1.18	23.60	2.03	47.91	7.24	36.000	-28.756
	4hr	1.38	27.60	2.01	55.48	8.39	72.000	-63.612
	6hr	1.50	30.00	1.97	59.10	8.94	108.000	-99.064
	10hr	1.70	34.00	1.97	66.98	10.13	180.000	-169.873
	24hr	2.05	41.00	1.89	77.49	11.72	432.000	-420.284
	48hr	2.30	46.00	1.89	86.94	13.15	864.000	-850.855

Attenuation Parameters

Length	2.0 m	Width	1.0 m
Depth	0.4 m	Void	95 %

Results

Critical storm duration (hrs)	5min
Minimum Required Volume (m ³)	0.670
Volume From Dimensions	0.76

Pass

AquaCell Modular Units

No. Units Long	2	No. Units Wide	2
No. Units Deep	1		
Total Number of Units	4	Unit Type	Unknown



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